

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/856,399	HAGENAUER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Guy J. Lamarre	2133	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/06/05.
2. ☒ The allowed claim(s) is/are 14-16, 19-24, now renumbered 1-9.
3. ☒ The drawings filed on 1/06/05 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|



Guy J. Lamarre, P.E  
 Primary Examiner  
 5/12/05



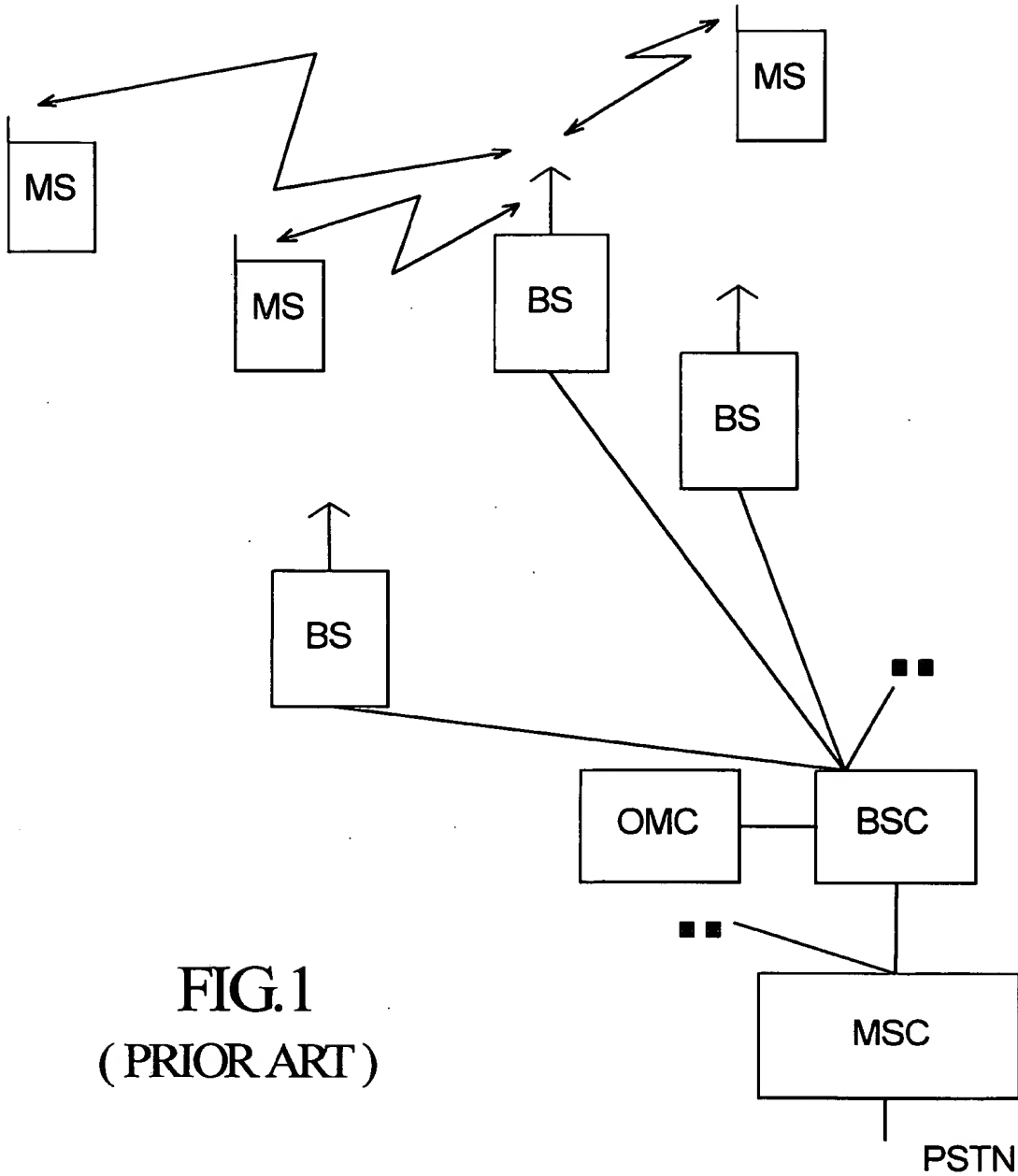



FIG.1  
(PRIOR ART)

The diagram shows a parallel neural network structure. An input  $u_t^l$  splits into two paths. The top path consists of a series of four blocks: a square block, a circle with a minus sign, another square block, a circle with a minus sign, a third square block, a circle with a plus sign, and a fourth square block. The bottom path consists of a series of four square blocks. The outputs of the top path's blocks are summed with the input  $u_t^l$  at each stage (indicated by circles with plus signs). The final outputs are  $x_t^1$  and  $x_t^2$ .

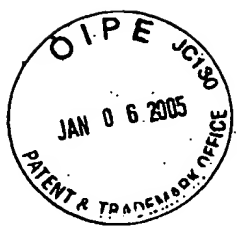
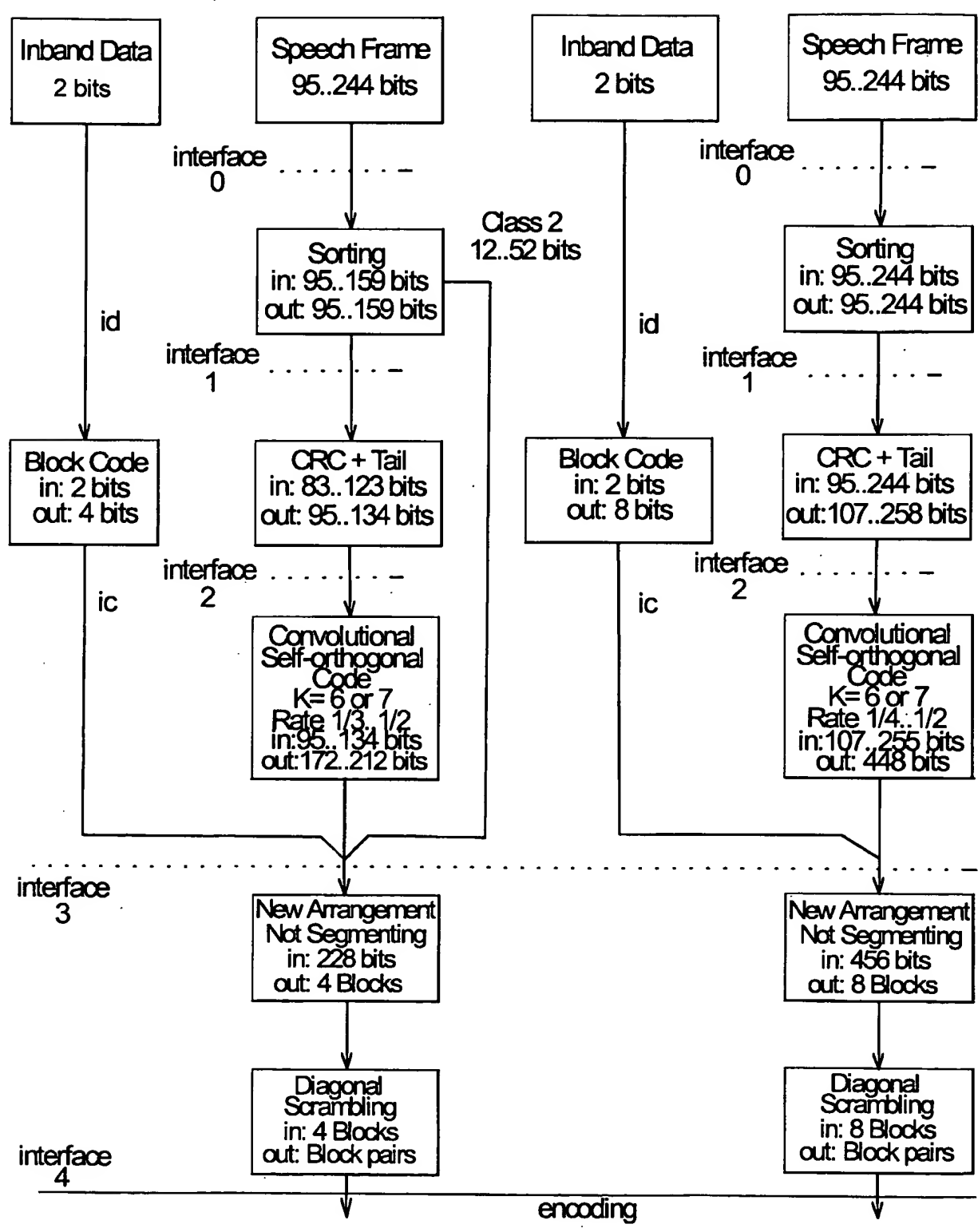


FIG. 4





## FIG. 5

$G0 = 1 + D^3 + D^4$	
$G1 = 1 + D + D^3 + D^4$	
$G2 = 1 + D^2 + D^4$	
$G3 = 1 + D + D^2 + D^3 + D^4$	
$G4 = 1 + D^2 + D^3 + D^5 + D^6$	TCH / AMR-FS, TCH / AMR-HS
$G5 = 1 + D + D^4 + D^6$	TCH / AMR-FS, TCH / AMR-HS
$G6 = 1 + D + D^2 + D^3 + D^4 + D^6$	
$G7 = 1 + D + D^2 + D^3 + D^5$	TCH / AMR-FS, TCH / AMR-HS
$G8 = 1 + D^2 + D^4 + D^5$	TCH / AMR-FS, TCH / AMR-HS
$G9 = 1 + D^3 + D^4 + D^5$	TCH / AMR-FS
$G10 = 1 + D + D^2 + D^3 + D^6$	TCH / AMR-FS, TCH / AMR-HS
$G11 = 1 + D^2 + D^3 + D^4 + D^5 + D^6$	TCH / AMR-FS
$G12 = 1$	TCH / AMR-FS, TCH / AMR-HS
$G13 = G8 / G7$	TCH / AMR-FS, TCH / AMR-HS
$G14 = G9 / G7$	TCH / AMR-FS
$G15 = G10 / G4$	TCH / AMR-FS, TCH / AMR-HS
$G16 = G5 / G4$	TCH / AMR-FS, TCH / AMR-HS
$G17 = G11 / G4$	TCH / AMR-FS

TCH / AMR-FS User data channel, adaptive multi-rate encoding, full rate

TCH / AMR-HS User data channel, adaptive multi-rate encoding, half rate

Approved 5/12/05



FIG. 6

